Innovation Sources, Practices, and Economic Development Programs Serving the Needs of Businesses

A Survey of Businesses and Recommendations

Washington Economic Development Commission

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The **WASHINGTON ECONOMIC DEVELOPMENT COMMISSION** is an independent, non-partisan commission charged by the Legislature with the mission of creating a comprehensive statewide strategy to guide investments in economic development, infrastructure, workforce training, small business assistance, technology transfer, and export assistance. The WEDC membership comprises business, labor, academic, and association and government leaders. In carrying out this legislative mandate and related responsibilities the WEDC will:

- Provide leadership, guidance and direction to the Governor and Legislature on a long term and systematic approach to economic development.
- Formulate a common set of outcomes and benchmarks for the economic development system as a whole and measure the state's economic vitality.
- Define public, private and philanthropic sector roles and best practices ensuring Washington captures the next generation of technology investment and global market opportunities.
- Provide a forum for geographic and industry cluster "institutions for collaboration" to build stronger partnerships.

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I. Introduction

As part of the Washington Economic Development Commission's (WEDC) broader directive to assess the economic development system in the Washington, this report addresses three inter-related issues:

1) What are the drivers of new ideas, where will innovation occur at the firm level in the near future, and what barriers exist;
2) To what extent businesses are currently aware of and using selected state resources; and
3) General attitudes about the state economy and the role of the state in supporting the private sector.

The WEDC, in partnership with the Washington State Employment Security Department, surveyed more than 1,400 businesses throughout the state to better understand these issues. Our primary findings:

1) Innovation-based activities within firms tend towards productivity improvements and marketing. The most common sources of innovation are from customers, followed by internally from employees and industry. However, these results vary based on firm size.
2) The largest identified barrier to greater innovation is something other than the choices provided, but which may include regulatory issues.
3) Among the programs reviewed, general awareness tends to be low.

Why these questions matter

This survey does not assess the *net impact* of select state program; however, it does provide insight into the extent to which these programs are effectively reaching out to the businesses that could use their services. Effectively communicating the existing and potential value of a government initiative or program is a frequent challenge. For instance, a joint survey by the National Small Business Association and Small Business Exporters Association in 2010 found that, among small firms that were already exporting, 45% expressed interest in having more export training and technical assistance readily available for small business exporters, yet 80% were not familiar with the Obama administration's recent export-enhancing proposals, and only 28% had used a state export assistance program.[1] No matter how well designed, managed, and deployed a business-directed state program is, generating a strong net impact can be seriously hindered without effective communication of the program's existence and value.

This survey also provides insight into the extent that existing programs are aligned with the WEDC's strategy of further fostering an innovation-based economy. The survey results provided here lend important hints about firm-level innovation-based activities, key concerns, state government priorities, and if there's a gap between their needs and awareness of what is already available.

[1] National Small Business Association and Small Business Exporters Association, "2010 Small Business Exporting Survey," 2010.

II. Survey and Approach

To better understand these three inter-related issues, a survey was conducted in partnership with the Employment Security Department (ESD) of more than 1,400 businesses across the state. Surveys were done in successive waves of emails and phone calls, often times with more than one person at a given firm to provide complete and thoughtful responses. The survey was conducted during August and September of 2012, with results reported in early October.

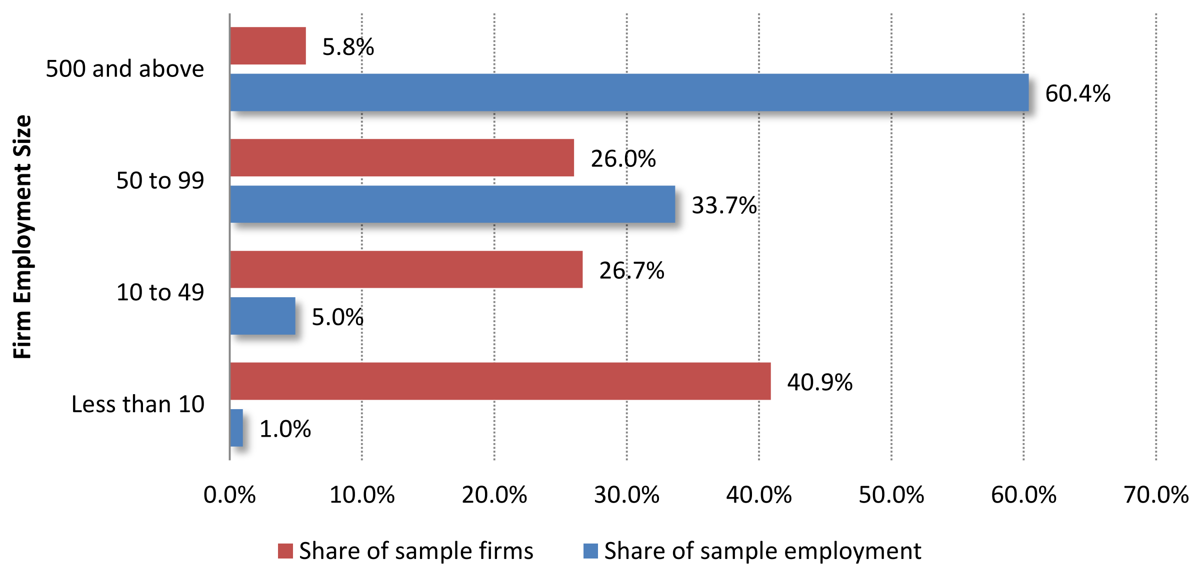
Our original sample targeted 3,000 businesses sampled from the Quarterly Census of Employment and Wages (QCEW) database. The QCEW database gathers payroll information—employment and wages—by month for every business and organization in the state based on mandatory payroll reporting through the Unemployment Insurance system. The only businesses excluded from the original dataset are sole proprietorships, since they are not required to pay UI taxes. The sample was filtered to exclude the public sector, all education institutions except private-sector educational services, and only retail businesses with at least 200 workers. ESD then built a sample based on QCEW records from the most recently processed UI data, from the last quarter of 2011. Employment data throughout this report is based on updated, current employment as self-reported by each surveyed firm and reflects operations statewide. Estimations reported throughout the remainder of this report are based on the sample and weighted responses, and are intended to describe the entire population of businesses in the state, minus those sectors excluded from the survey. We emphasize that these results reflect perceptions of respondents only, and that since input from agency program managers is not part of this assessment, all observations should be taken as indicative.

To take advantage of this outreach, each ESD survey caller was provided with a list of contact information for all the programs being asked about, so that firms unaware of one or more could be provided this information upon request.

III. Basic, Raw Demographics of Firms Surveyed

From our initial sample, we were able to collect data on 1,406 businesses and organizations with an aggregate workforce of 183,839. Approximately 40.9% of firms surveyed employed less than 10 workers; these businesses collectively employed only 1.0% of total employment in the sample. We define small firms as those with between 11 and 49 workers. This cohort covered roughly 26.7% of firms surveyed and 5.0% of all workers. 26.0% of firms surveyed were between 50 and 499 workers, and covered about 33.7% of workers. Firms of 500 workers or more constituted 5.8% of the survey sample, but covered nearly two-thirds (60.4%) of the workforce (**Figure 1**). We collected data on 142 manufacturing firms with aggregate employment of 25,968 workers.

Figure 1. Sample Firm Characteristics (N = 1,406)

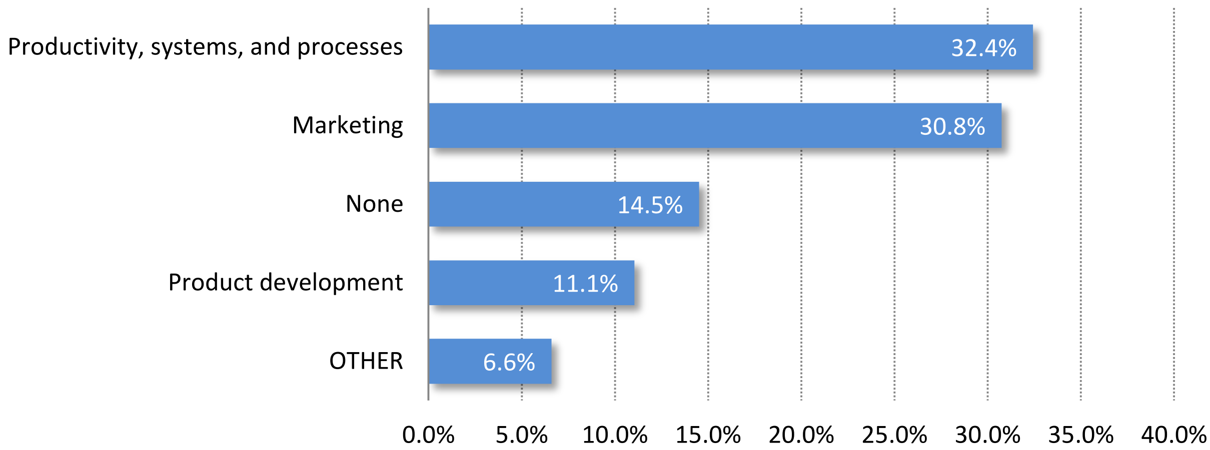


IV. Innovation—Practices, Sources, and Challenges Going Forward

Our first set of questions helped us gauge the extent, sources, and challenges of innovation at the firm level, now and in the near future. We started by asking firms about the kinds of innovation activities management sees as being primarily engaged in over the next five years. As a preamble to this question, we described innovation as relating to "the development of new products, business processes, ideas, and their adoption by businesses." Overall, based on our sample and responses, we estimate that 32.4% of all businesses in the state (excluding those industries filtered from our sample) see "productivity, systems, and processes" as the primary area of innovation of activity over the next five years.[2] Marketing was just behind, at 30.8%. Based on our sample, 14.5% of firms do not see innovation at all as an important enough activity to identify among the options provided (**Figure 2**).

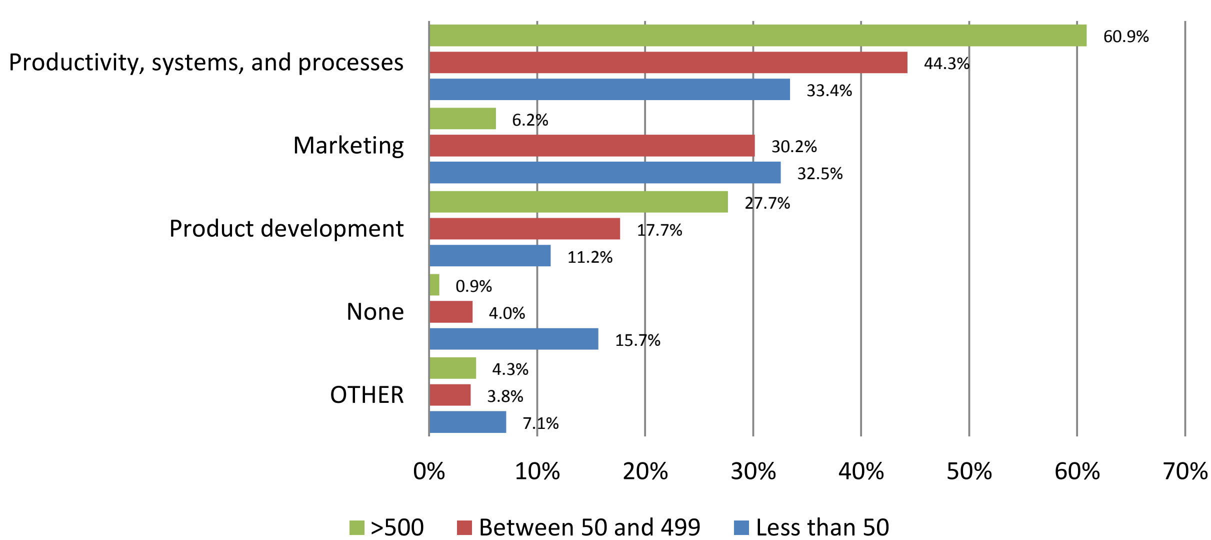
[2] The 95% confidence was between 29.4% and 35.5%.

Figure 2. Primary Area of Innovation Activity in the Future (N = 1,357)



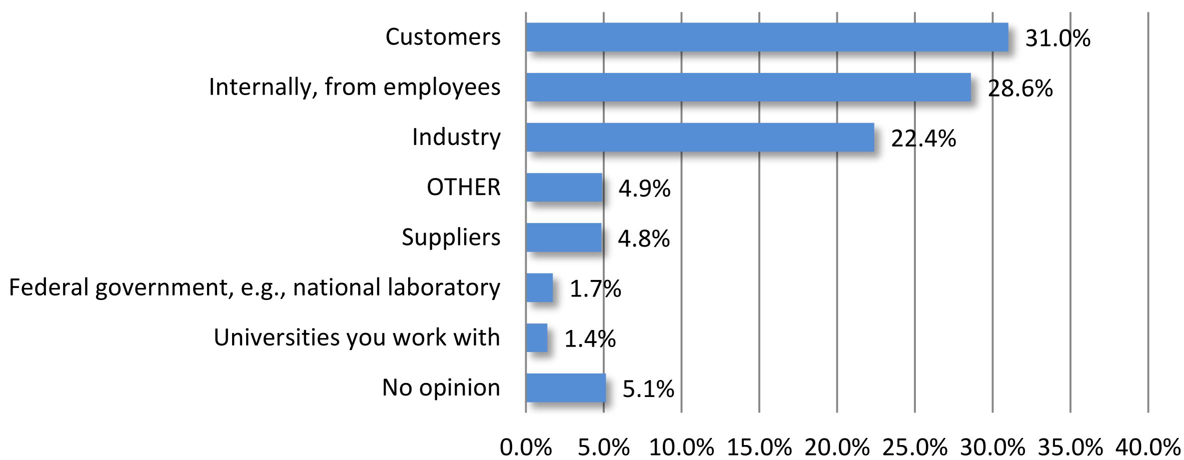
However, responses varied based on firm size. For instance, among firms with less than 50 employees, responses were fairly split between "productivity, systems, and processes" (33.4%) and marketing (32.5%; **Figure 3**). However, among firms with between 50 and 499 workers, we estimate more than 44% of all firms in this size cohort identify with "productivity, systems, and processes"—more than double the share of those identifying with product development. We estimate nearly 61% of large firms identify with "productivity, systems, and processes," but this size cohort also had the highest percentage identifying with product development; this is consistent with a general concentration of industry R&D in the largest firms. Looking exclusively at manufacturing firms, 36.4% view "productivity, systems, and processes" as their primary innovation activity, followed by product development (26.8%) and marketing (23.4%).

Figure 3. Primary Area of Innovation Activity, *by Firm Size*



We next asked firms about where they saw the most important sources of new ideas over the next five years. We gave each respondent the option to select up to two sources, indicating which source was the "most important" versus "second most important." We collected 2,656 uniquely selections, representing 1,349 firms (some respondents made only one selection). We then used these responses to arrive at estimations for the entire population of businesses across the state (after removing select industries, as discussion in **section II**). Based on this sample and responses, we estimated that 31.0% (± 3.2 percentage points) viewed ***customers*** as the primary source, followed by "internally, from employees" (28.6%, ± 3.1 ppt) and from elsewhere in industry (22.4%, ± 2.9 ppt). Customers also ranked highest as the second most important source, followed by "internally, from employees" and industry.

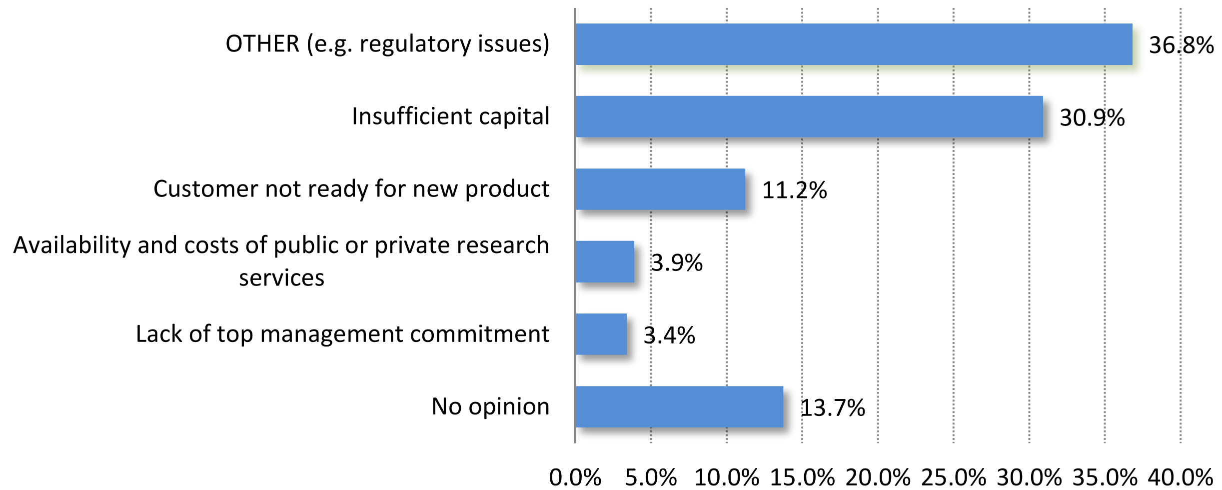
Figure 4. Most Important Source of New Ideas (N = 1,402)



Lastly, we wanted to understand what firms saw as the biggest barriers to innovation in the coming years (**Figure 5**). We provided five possible answers: 1) customer not ready for new product; 2) insufficient capital; availability and costs of public or private research services; 3) lack of top management commitment; or 5) a catch-all "other category, which could include regulatory issues. Among all firms, 36.8% selected “other,” which as a catch-all category may include concerns over regulatory issues, while 30.9% identified with “insufficient capital.” Our weighted estimates showed that availability and costs of public and private research services is not a major concern (3.9%), but we cannot discern to what extent this is due to a lack of awareness of services available to businesses.

The selection of “other” became more pronounced with firm size, growing from 35.7% among those with less than 50 employees to 54.1% among medium-sized firms (less than 500 workers) to 68.9% among firms with at least 500 workers. None of the 78 firms in our sample with 500 or more workers that responded to this question identified a lack of commitment by top management as their primary concern. Insufficient capital was—not surprisingly—most pronounced among micro and small firms (31.5%); among all other manufacturers this rose to 38.6%.

Figure 5. Biggest Barriers to Innovation over Next Five Years (N = 1,406)



V. Awareness of State Programs

We were interested to what extent firms are aware of existing state resources purposed with supporting businesses. We identified seven areas of assistance. Some of these are stand alone programs, whereas others capture a collection of programs around a specific type of activity. **Table 1** summarizes these programs and the rate of "awareness" among those businesses surveyed.

Table 1. Breakdown of activities, programs, businesses served, and program awareness

Activity	Program(s)	Primary Business Demographic	Rate of Awareness within Demographic
Export finance counseling	Export Finance Assistance Center of Washington	All *except* construction, real estate, healthcare & social assistance, and food & accommodation.	7.1%
Export Assistance for non-agriculture businesses	Washington State Dept. of Commerce Trade Unit	All *except* primary sectors, utilities, construction, food processing, real estate, healthcare, and food and accommodation, and businesses with more than 499 employees.	6.5%
Export Assistance for agriculture and food processing businesses*	Washington State Dept. of Agriculture International Marketing program	Agriculture and food processing.	31.3%
SBIR/STTR technical support	Innovate Washington (formerly WTC and SIRTI)	Manufacturing; scientific, professional, and technical services; information.	8.5%
Technology incubation services	Innovate Washington (formerly WTC and SIRTI)	Manufacturing; scientific, professional, and technical services, information.	12.2%
Manufacturing-aligned training and technical support	Impact Washington	Manufacturing.	20.1%
Business-driven skills training	Job Skills and Customized Training Programs	All	25.1%

**There is some overlap between this demographic subgroup and manufacturing, since food processing firms are manufacturing firms.*

Using online materials for each associated program, we determined the set of firms—based on industry codes and targeted business size classes—that formed the primary targeted recipient group for each activity, or "primary demographic." For instance, the Washington State Department of Agriculture's (WSDA) International Marketing program primarily serves farmers and food processing businesses (NAICS 11, 311, and 312). Likewise, the Manufacturing Extension Partnership (aka "Impact Washington") primarily serves manufacturing firms, while the Job Skills and Customized Training programs serve all kinds of businesses. The primary demographic for Commerce's export assistance program included a combination of select industry codes and firm sizes, the latter since the program primarily targets small and medium-sized enterprises (SMEs). These primary demographic groupings are imperfect, but do help us better approximate the rate of awareness among key, targeted constituent firms.

Among the programs examined here, the WSDA International Marketing program had the highest rate of "awareness" among its primary demographic, though it also had the smallest sample subset (74 firms). Based on our sample and responses, we estimate roughly a quarter (25.1%, ± 2.8 percentage points) were aware of the Job Skills and Customized Training programs. Among firms primarily engaged in manufacturing, scientific, technical, and professional services, and information (e.g. software), 8.5% were aware of services offered at was previously SIRTI and the Washington Technology Center (now Innovate Washington), while 12.2% of these firms were aware of technical support and seminars offered for SBIR and STTR application writing. Approximately 6.5% of firms that fall within the primary demographic of Commerce's export assistance program indicated awareness of the program.

Customer Satisfaction—Job Skills and Customized Training

In our original survey, we had intended to analyze additional information on customer/user satisfaction for each program. However, due to the very small number that have used each program within the sample, we are only able to do this for one set of combined programs—the Job Skills and Customized Training programs. While these two programs are distinct and provide differing types of financial assistance/support to firms, they are both managed by the State Board for Community and Technical Colleges, and similarly purposed with providing support for employer-requested training. The Job Skills Program provides a cash one-to-one match for training as selected by the employer, so long as the training is for hiring new workers (either through arrival of new company or expansion of an existing one) or upgrading skills of incumbent workers. Companies work with their local community and technical college to decide on the training needed, and can cover their half of the match with in-kind contributions (e.g., donated equipment, wages and salaries of workers undergoing training). The skills acquired must be transferrable to meet the criteria of the program. The Customized Training program is similar to the Job Skills program, only that there is no requirement that skills be transferrable, and businesses must repay the funds interest-free over an 18-month period and claim tax credits equal to 50 percent of the amount as it is repaid.

Of the 453 firms that indicated they were aware of either of those programs, 69 disclosed that they have used it in the past three years. Based on our sample and weighted responses, we estimate more than half (53.2%) feel this program is either critically important or very important to their business (**Figure 6**). We estimate 30.2% of participants were "very satisfied" with the program, with another 39.0% satisfied, while 5.6% said they were “unsatisfied” and 2.2% “very unsatisfied” (**Figure 7**). However, we have no means through this survey instrument to probe deeper into the root causes of this dissatisfaction with either program, though the general results tend towards very positive reviews. 86.4% of participants would use the program again.

Figure 6. How Important was either the Job Skills or Customized Training Program to Your Overall Performance? (N = 67)

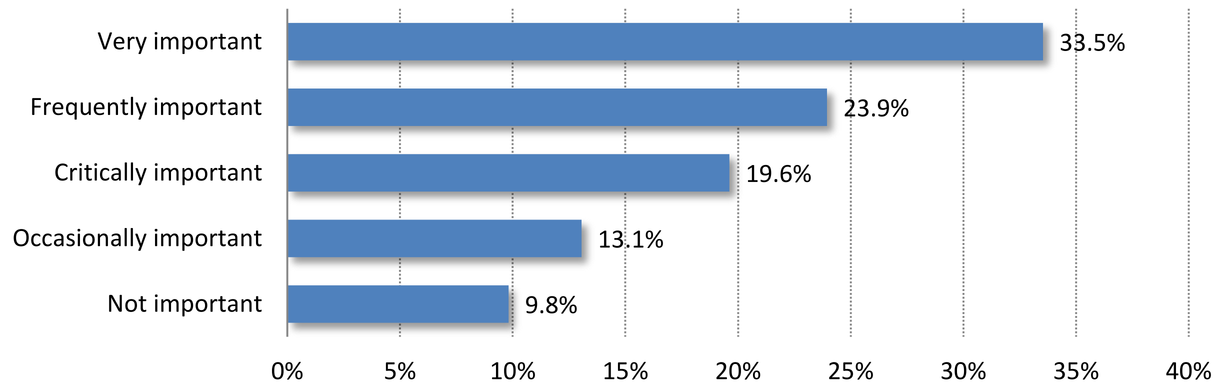
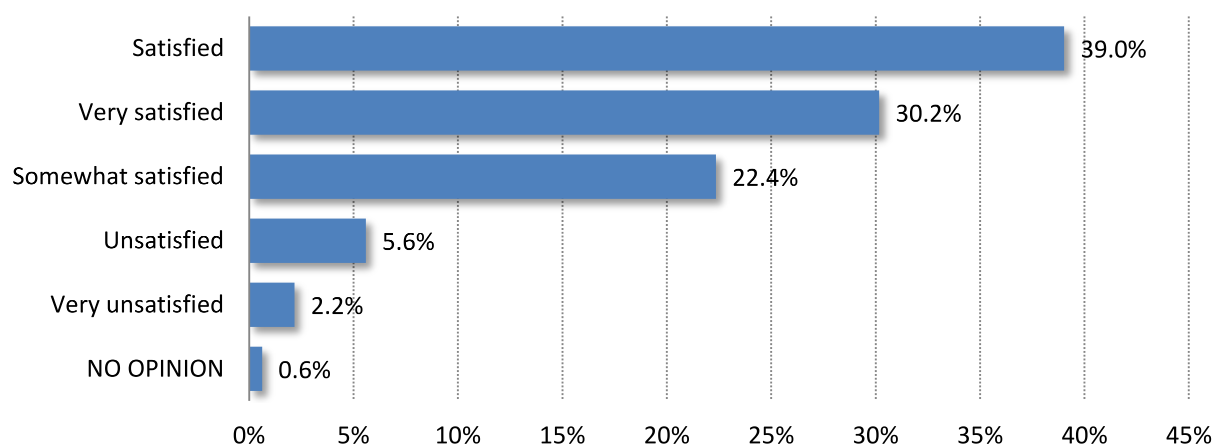


Figure 7. How Satisfied Were You with Either the Job Skills or Customized Training Programs? (N = 67)



VI. Business Sentiment about State Programs and the Economy

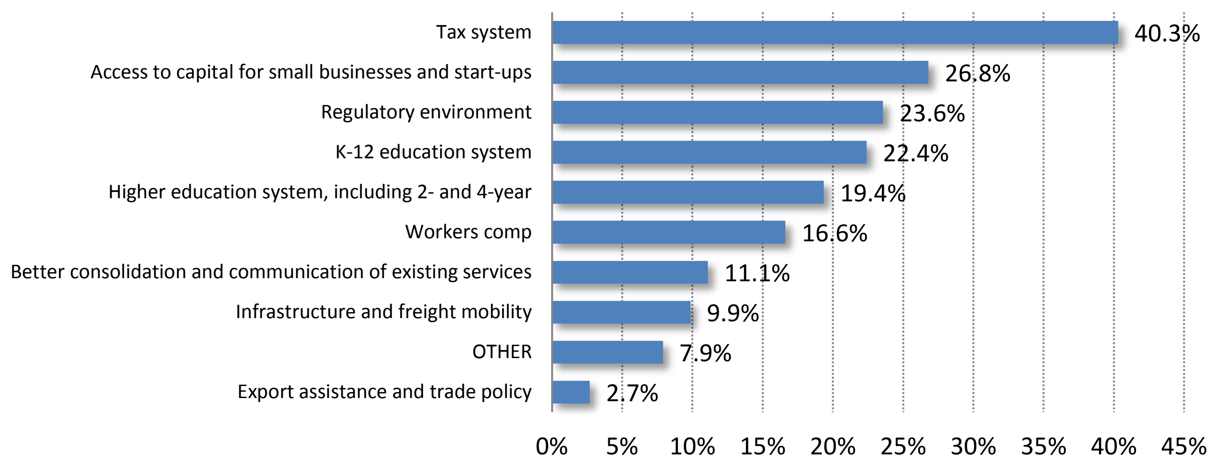
The last section of our survey attempted to gauge private sector sentiment about the economy and role of state government. In our last structured question, we asked respondents, based on their business, what the ***two*** most important economic development-related items state government should be focused on improving. The largest issue of concern was the tax system (weighted estimate of 21.0% of sample cited this as one of their top two concerns), followed by access to capital for small businesses and start-ups (13.9%) and the regulatory environment (12.3%; **Figure 8**).

We then collected some optional comments about what each business might like state government to provide or change regarding assistance programs for businesses. 1,400 firms indicated at least one area of focus, with a total of 2,743 selections (some firms provided only one answer). From these responses, the most important issue was the tax system, with 40.3% of all businesses identifying this as an important area of state focus. This was followed by access to capital for small firms and start-ups (26.8%), regulatory environment (23.6%), and the K-12 system (27.4%). Export assistance was surprisingly low, garnering only 2.7%.

However, we caution about the value of these numbers—while the tax system was the most common issue, it is not clear from these results what aspect(s) of the system businesses who selected this want changed. Likewise for regulatory environment, we have no additional information to help differentiate concerns over compliance with the core intentions of the regulations.

There was some divergence in responses by firm size. For instance, while 41.0% and 44.5% of small (under 50 employees) and large (500 or more) businesses selected "tax system" as an important area of needed improvement, only 29.3% of medium-sized firms (50 to 499 employees) identify with this issue. Perhaps unsurprisingly, 27.5% of small businesses believe that access to capital is a major concern, compared with only 7.3% of large businesses. Among manufacturers, 45.5% see the tax system as a primary area of reform, while only 5.4% expressed concerned the higher education system. The latter finding was surprising, given that this category includes two-year associate degrees, and the public discourse on the need for more post-secondary-trained manufacturing workers, now and in the near future. Other than the tax system, large firms were most concerned with regulatory issues (weighted estimate of 41.4%); this was the largest concern among medium-sized firms, although with a lower weighted estimate of 33.4% of all businesses in this size class.

Figure 8. Based on your business, what are the two most important economic development-related items state government should be focused on improving? (N = 1,400)



Note: percentages sum to more than 100%, but less than 200%, because firms were given the option of providing up to two choices (though some only provided one). Results should be read as "the percentage of all respondents who identified...as one of the two most important areas of focus."

Perhaps not surprisingly, when cross-walking responses with those for our innovation questions, more than a quarter (27.5%) of firms that indicated that product development would be their primary area of innovation also indicated they'd like higher education to be one of the two areas the state should work on improving. Among those that selected "marketing," only 1% chose export assistance as an area in need of improvement, but 42.9% called for improvements in the tax system (and 36.2% of those that foresee their innovation based on product development).

In the last part of our survey, we gave respondents the opportunity to share any comments or additional thoughts on what they'd like to see state government provide or change regarding assistance programs for businesses. This was a non-structured, in the sense that we did not provide categorical answers that could be easily tabulated and analyzed. 406 of the 1,401 participants provide feedback. Doing a search for key words, 15% of respondents made reference to regulatory issues, while 14% brought up issues related to small business. Only 2.2% of respondents brought up healthcare-related issues, while 3.2% made reference to "better communication" or "marketing" with respect to state programs discussed. One participant lamented that the state "should market [the state's] programs a little better since I was unaware of any of the programs [being asked about]."

Discussion

Overall, awareness of state programs has been disappointingly low. In the case of export assistance, there are two possible (inter-related) reasons why awareness levels are noticeably different between the Washington State Department of Commerce and the Washington State Department of Agriculture. These include:

1) **Less programs directly servicing the agriculture industry on exporting matters, thereby limiting amount of confusion as to roles and services provided**. Export assistance services for SMEs engaged in activities other than primary extraction, and food processing are numerous and often fail to clearly differentiate roles and activities. For instance, this space includes export assistance from the State Department of Commerce, U.S. Department of Commerce, International Trade Alliance (based in Spokane), Trade Development Alliance of Greater Seattle, and World Trade Center Tacoma, to name just a few. While the types of services provided vary by program, and not necessarily in overlapping ways (e.g., free state export assistance covers only select countries where Washington has an oversees office, while federal export assistance is fee-for-service and covers almost all countries in the world), it is often not clear to SMEs which program(s) best suit their specific needs.
2) Washington State Department of Agriculture is closely tied to the long-standing USDA MAP funds, which allows WSDA to provide regular benefits to exporters such as bringing real inbound buyers missions to Washington, paying for trade show expenses and company travel to international markets, etc. For non-agriculture activities, the federal government has never provided a similar level of funding support, opting instead to invest in a national network of U.S. Export Assistance Centers, which heavily duplicates most state funded export assistance programs for in-state technical support. The most recent exception was the SBA's State Trade and Export Program funding, which was similar to MAP. Perhaps not surprisingly, outreach efforts for STEP have been seemingly more successfully, due in large part to the availability of direct, financial subsidies to businesses that qualify for the program.

VII. Recommendations

No matter the effectiveness of a state program, resources are needed to provide a sufficient and sustained level of communication about the program to its target constituent base. No matter efficiency, customer value, and excellent management—if a program is not reaching its intended subgroup of businesses that could use its services, the net impact of the program will be limited. We recommend the following:

1) ***First, an evaluation of existing efforts to market services and initiatives by agency directors and program managers.*** Policymakers should better understand practices currently underway and what issues preclude greater dissemination of information. For instance, to what extent, and how often, do program managers and directors reach out to new prospective clients? For those that engage in outreach, have they systematically assessed which strategies work for outreach and which don't? For example, if a program organizes seminars to advertise their services, who attends these events and have new clients been generated as a result? If there are other, proven models for outreach, how resource-intensive would they be?
2) ***Second, execute an assessment of degree of awareness among program managers of other programs supporting a similar business demographic.*** One way to raise awareness of business-targeted services is to improve awareness within state government and to encourage program managers to refer clients to other programs that might be able to assist on other, important

matters. For instance, if a program providing training to a business learns that they would like to export, the program manager should offer to connect the business with one or more of the state's export-supporting programs.

3) ***Agency directors explore ways to hold joint outreach events***. Sometimes programs from very different agencies have overlapping client bases. Many individual program managers and administrators have developed working relationships with counterparts in other programs and agencies, but could a more formalized approach be taken? For instance, the state could explore crafting an advertising approach that "packages" a suite of services targeting a specific company demographic, e.g., small businesses that may be in need of job skills training, export counseling, and introductions to potential suppliers within Washington. The WEDC could convene strategy meetings among state, federal, local, and non-profit programs and initiatives around either:
    a) Activities, e.g., export assistance, business recruitment, etc.; or
    b) Primary demographic, e.g., programs and initiatives that serve small businesses.

    Each of these groups would be tasked with developing and executing a comprehensive strategy that clearly delineates what each participating program or initiative does and ways to disseminate this information jointly to the business community in a way that clearly conveys a "support system" on a periodic basis.

4) ***Explore a more comprehensive, shared customer relations management system to be used by all state programs providing economic development services to businesses.*** Such a system should incentivize managers—using a fluid and seamless platform—to make referrals to other relevant programs in state government. The customer relations management system being used by the Department of Commerce's Business Services Division across multiple programs could serve as a scalable model.